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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/777,958	12/24/1996	DONALD F. HAMILTON	02103/211002	4029

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07/19/2002

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EXAMINER

LEE, PING

ART UNIT

PAPER NUMBER

2644

DATE MAILED: 07/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

08/777,958

Applicant(s)

HAMILTON ET AL.

Examiner

Ping Lee

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2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 27 February 1998.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. The prosecution has been reopened under 37 CFR 1.198.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by  
“BAZOOKA Bass Tubes” (“Car Audio and Electronics”).

It is noticed that the current invention as specified in the claims does not require the low frequency speaker being operational. The claims are being rejected under 103 rejection in paragraph 6 below.

Assuming that the low frequency speaker is operational, the claims limitation are met in view of the discussion below.

Regarding claim 1, on the lower half of p. 41, a vehicle (sedan) is shown. A low frequency speaker (Bazooka woofers) is being disposed within the trunk of the vehicle clear of the rear deck, above the trunk floor and outside the spare tire compartment. Although not explicitly discussed, the sedan (Honda Accord, Toyota Camry, Nissan Pulsa, Nissan 200SX, BMW or Mercedes) inherently includes a spare tire compartment, a trunk floor, a dividing portion and a rear deck.

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Regarding claims 5 and 10, the limitation of these claims are not functionally related to the limitation in claims 1 and 6 since the claims never specify that the claimed frequency responses are caused by the woofer being placed in the trunk, not mounted on the rear deck as disclosed in the specification as originally filed as the prior art. With the low frequency speaker is disposed in the trunk as shown on p. 41, not conventionally mounted on the rear deck, the claimed frequency responses are inherently met (as discussed on p. 1 of the specification, the low frequency speaker mounted on the rear deck will cause a hole between 60-80 Hz for the front seat, and a hole between 80-100 Hz for the back seat).

Regarding claims 2, 3, 7 and 8, the low frequency speaker is disposed in a rearward section of the trunk ("The Bazooka woofers can be directed into the rearmost corner of the trunk(shown), or they can be located directly behind the back seat, whichever is preferable") and is disposed in a rear trunk corner at the rear of the vehicle (as shown in the diagram).

Regarding claims 4 and 9, as shown on p. 41, the low frequency speaker is mounted in an enclosure.

Regarding claim 6, as shown on p. 41, the rear deck is free of speaker holes when the low frequency speaker is placed on the trunk floor.

4. Claims 1, 2, 4-7, 9 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Ziffer ("pursuit of Perfection" by "Car Audio and Electronics").

It is noticed that the current invention as specified in the claims does not require the low frequency speaker being operational. The claims are being rejected under 103 rejection in paragraph 7 below.

Assuming that the low frequency speaker is operational, the claims limitation are met in view of the discussion below.

Regarding claim 1, a vehicle (sedan) is shown on pps. 46-48. A low frequency speaker (Bazooka Bass Tubes) is being disposed within the trunk of the vehicle clear of the rear deck, above the trunk floor and outside the spare tire compartment. Although not explicitly discussed, the vehicle inherently includes a spare tire compartment, a trunk floor, a dividing portion and a rear deck.

Regarding claims 5 and 10, the limitation of these claims are not functionally related to the limitation in claims 1 and 6 since the claims never specify that the claimed frequency responses are caused by the woofer being placed in the trunk, not conventionally mounted on the rear deck as disclosed in the specification as originally filed. With the low frequency speaker is disposed in the trunk as shown on p. 48, not conventionally mounted on the rear deck, the claimed frequency responses are inherently met (as discussed on p. 1 of the specification, the low frequency speaker mounted on the rear deck will cause a hole between 60-80 Hz for the front seat, and a hole between 80-100 Hz for the back seat).

Regarding claims 2 and 7, the low frequency speaker is disposed in a rearward section of the trunk (the top picture on p. 48 shows the speaker is disposed on the

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rearward section of the trunk when one opens the trunk hood and view the speaker from the rear of the vehicle).

Regarding claims 4 and 9, as shown on p. 48, the low frequency speaker is mounted in an enclosure.

Regarding claim 6, as shown on p. 48, the rear deck is free of low frequency speaker holes when the low frequency speaker is placed on the trunk floor. As discussed by the entire article, no speaker is being mounted on the rear deck.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over "BAZOOKA Bass Tubes" ("Car Audio and Electronics").

It is noticed by the examiner, the current invention as specified in claims 1-10 does not require an audio input signal. Therefore, the limitation of the claims will also be met when someone purchases a woofer from a store and place it above the trunk floor. It would have been obvious to one of ordinary skill in the art to hide a purchased low frequency speaker within the trunk, above the trunk floor, outside of the spare tire compartment, just like placing a luggage in order to reduce the chance of being stolen.

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7. Claims 1, 2, 4-7, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ziffer.

It is noticed by the examiner, the current invention as specified in claims 1, 2, 4-7, 9 and 10 does not require an audio input signal. Therefore, the limitation of the claims will also be met when someone purchases a woofer from a store and place it above the trunk floor. It would have been obvious to one of ordinary skill in the art to hide a purchased low frequency speaker within the trunk, above the trunk floor, outside of the spare tire compartment, just like placing a luggage in order to reduce the chance of being stolen.

8. Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ziffer in view of van Rijsbergen or "BAZOOKA Bass Tubes" ("Car Audio and Electronics").

Assuming that the low frequency speaker is operational, the claims limitation are met in view of the discussion below.

Regarding claims 3 and 8, Ziffer fails to show the low frequency speaker being disposed in the rear trunk corner at the rear of the vehicle. However, such a modification would have been an obvious design choice of the audio system installer without altering the overall sound quality.

As taught by van Rijsbergen, "bass tone will travel through the car readily", so the "placement of the low range speakers can be quite flexible", and one can use his/her "imagination a little and find a place for woofers which would not otherwise fit in conventional mounting positions" (p. 21). Ziffer discloses a custom fit/design audio

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system for a vehicle. The audio system installer would place the low frequency speaker at the location with minimal compromise of trunk space (p. 48), and as approved by the owner of the vehicle. By placing the low frequency speaker at the trunk corner at the rear of the vehicle, one skilled in the art would have expected that more space would be available behind the back seat, so the user could place luggage, articles, boxes, or other infrequently used objects below the rear deck.

The other article ("BAZOOKA Bass Tubes") also teaches that the bass tube can be placed either behind the back seat or at the rear corner of trunk at the rear of the vehicle (as shown) depending on the preference.

Thus, it would have been obvious to one of ordinary skill in the art to modify the audio system as disclosed by Ziffer in view of van Rijsbergen or "BAZOOKA Bass Tubes" by locating the low frequency speaker at the rear trunk corner at the rear of the vehicle in order to provide more trunk space behind the back seat.

Furthermore, applicant discloses that any rear remote area of the trunk would be an acceptable location for the low frequency speaker, and without specifying the reason to locate the speaker at the rear corner of the trunk of the rear of the vehicle other than a preference.

Shifting the location of the low frequency speaker in order to save trunk space and depending on preference is not a patentable invention. It merely involves common sense and/or mechanical skill in order to save space and/or better suit the preference of the user of the vehicle. Thus, it has been held to be within the general skill of a worker



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in the art to rearrange the location of the low frequency speaker as a matter of design choice. In re Japikse, 86 USPQ 70.

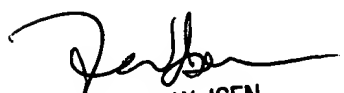
***Response to Arguments***

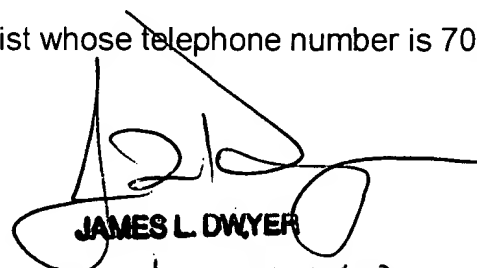
9. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ping Lee whose telephone number is 703-305-4865. The examiner can normally be reached on Monday and Tuesday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W Isen can be reached on 703-305-4386. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.

  
FORESTER W. ISEN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

  
JAMES L. DWYER  
Director TC 2600

pwl   
July 16, 2002